## DETAILED DESCRIPTION 11-275326

[Detailed Description of the Invention]
[0001]
[Field of the Invention]This invention relates to an image processing device which has the function to store two or more image data for printing, and a method for controlling the same, concerning an image processing device and a method for controlling the same.
[0002]
[Description of the Prior Art]In recent years, a digital system is becoming in use and a copying machine also has a thing with a means to accumulate the digitized picture. In such a digital process copying machine, there is a composite machine having a facsimile or a printer function, and the manuscript picture which should be copied to the image storage means, the picture by which facsimile reception was carried out, and the picture which should be printed can be accumulated. By establishing such an image storage means, the following merits arise to a device.
[0003]The number of times which reads a manuscript can be managed with once by outputting the picture which stored the picture in the image storage means in part at the time of the copy of eyes, and was stored in it by the image storage means in the copy after the second copy when it was going to print two or more copies of a certain manuscript in the first place. When functioning as a printer, deployment and reception of a Page Description Language (PDL) can be managed with once, When the host device which sends out printing data can be made to open for a short time wide from print processing and also data transfer between host devices is performed via networks, such as LAN, there is also a merit which can reduce the traffic of the network.
[0004]By replacing the turn of the picture of the page unit stored [ second ] in the image storage means, even if there is no mechanical sorter, what is called an electronic sorting function whose sorting is possible is realizable.
[0005]What is called directions like a memory box that can pull [ third ] out a picture arbitrarily from an image storage means by carrying out arbitrary period accumulation of the picture are also considered.
[0006]
[Problem(s) to be Solved by the Invention]When using several GB of hard disk as an image storage means or thinking cost as important, it is that RAM shall be about 64 MB without using a hard disk, and it corresponds to this.
[0007]On the other hand, in order to think the image quality of an outputted image as important, about 600x600 dpi is required of the resolution of a picture, and the data volume of the picture of A4 size is set to about 10 MB. Generally, although the image storage means is equipped with the data compression means, the compression ratio of dot images, such as a photograph, is small, and the effects of a data compression are few.
[0008]Therefore, the thing for which the manuscript picture which should be copied to an image storage means, the picture by which facsimile reception was carried out, and the picture which should be printed are accumulated, It is necessary to consider not only temporary accumulation but use of an image storage means like a memory box, and to take into consideration the case where an image storage means will be in a memory full state.
[0009]This invention is for solving an above-mentioned problem.

The purpose is to provide an image processing device in consideration of the case where the accumulation means which stores the image data for printing will be in a memory full state, and a method for controlling the same.

[0010]
[Means for Solving the Problem]This invention is provided with the following composition as a way stage which attains the aforementioned purpose.
[0011]This invention is characterized by an image processing device comprising the following.
An accumulation means which stores two or more image data for printing.
A selecting means which chooses image data accumulated in said accumulation means in a predetermined procedure when openings of said accumulation means run short.
An evacuation means to make selected image data shunt to other storage media, and to generate free space to said accumulation means.

[0012]An image processing method concerning this invention is the control method of an image processing device provided with an accumulation means which stores two or more image data for printing, When openings of said accumulation means run short, choose image data accumulated in said accumulation means in a predetermined procedure, selected image data is made to shunt to other storage media, and free space is generated to said accumulation means.
[0013]
[Embodiment of the Invention]Hereafter, the image processing device of one embodiment concerning this invention is explained in detail with reference to Drawings.
[0014][Composition] Drawing 1 is a block diagram showing an example of the system configuration of the compound digital process copying machine concerning this invention.
[0015]The copying machine 100 consists of two blocks of the DCON section 103 which performs the IP section 101 which performs control, Image Processing Division, etc. of the whole device, mechanism control, a process control, etc. in drawing 1. The IP section 101 is controlled by CPU102 and the DCON section 103 is controlled by CPU104. The DCON section 103 controls the feeder 105, the sorter 106, etc.
[0016]The facsimile (FAX) part 107 is for carrying out facsimile transmission of the picture read with the scanner of the copying machine 100 through a circuit, or making the printer of the copying machine 100 print the picture received via a circuit. This facsimile section 107 does not have CPU, but is controlled by CPU102 of the IP section 101.
[0017]The PDL section 108 is for developing in a picture the PDL data received from host computers, such as a personal computer, and making the printer of the copying machine 100 print this, and is controlled by CPU109. The PDL section 108 functions also as a network interface for performing information exchange of the exterior and both directions via a network.
[0018]The image server 110 has the function to store the manuscript picture which should be copied, the picture by which facsimile reception was carried out, and the picture which should be printed, and is controlled by CPU111.
[0019]These facsimile sections 107, the PDL section 108, and the image server 110 are connected with the IP section 101 of the copying machine 100 via the selector 112 called

CORE IP, and an exchange of a picture and data is performed. Thus, in addition to the copying machine 100, the compound digital process copying machine shown in drawing 1 is provided with the facsimile section 107, the PDL section 108, and the image server 110, these function on one as one system, and an exterior has integral construction as a copying machine.

[0020][Copying machine] Drawing 2 is a general-view figure showing the example of composition of the copying machine 100.

[0021]The exposure lamp 201 illuminates the manuscript placed on a manuscript stand, being scanned by the longitudinal direction of 200 of a manuscript stand. The catoptric light from a manuscript is led to the mirrors 202, 204, and 205, and image formation is carried out on the light sensing portion of CCD line sensor 208 via the lens 207. The scanner unit 206 which comprises the mirrors 204 and 205 moves by V/2 to the movement speed V of the scanner unit 203 which comprises the exposure lamp 201 and the mirror 202, and the distance from a manuscript surface to the lens 207 is always kept constant. CCD line sensor 208 carries out photoelectric conversion of the catoptric light from the manuscript inputted, and outputs the picture signal showing a manuscript picture per line. This picture signal is processed in the signal processing part 209, and is changed into the pulse signal by which PWM modulation was carried out.

[0022]Based on the pulse signal which is outputted from the signal processing part 209 and by which PWM modulation was carried out, the control exposure 210 controls luminescence of a laser diode, and irradiates with it the surface of the photoconductive drum 240 turning around the optical beam outputted from a laser diode. An optical beam is scanned by the shaft orientations of the photoconductive drum 240, and parallel at this time. Before an optical beam is irradiated with the surface of the photoconductive drum 240, residual charge is discharged by the pre exposure lamp which is not illustrated, and it is uniformly charged with the primary charging machine 228. The electrostatic latent image formed in the surface of the photoconductive drum 240 of the optical beam is visualized by the development counter 211 with the developing material (toner) of a predetermined color.

[0023]On the other hand, loading storage of the recording form of fixed form size is carried out in the base of pallet 223 and 224 of a recording form. The base of pallet 223 and 224 is stored by the device main frame, and the lift rise of the recording form is carried out to the position of the feeding roller pairs 229 and 232 by the lift rises 225 and 226. The feeding roller pairs 229 and 232 are driven by the same motor that is not illustrated, and choose one side of the base of pallet 223 or 224 as feeding origin of a recording form by changing the hand of cut of a roller. In order to prevent a recording form supplying in piles one side of a roller which makes the pair of the feeding roller pairs 229 and 232, with the supply direction of the recording form, torque is added to the opposite direction. The feeding roller pairs 230, 233, 234, and 235 convey the recording form supplied even to the resist roller 238.

[0024]In this embodiment, it is possible to connect the base of pallet of a recording form further, and to extend it under the figure, and the feeding roller pair 231 is a roller pair used when supplying a recording form from the base of pallet connected under the figure. When manual paper feed mode is chosen on a final controlling element, the manual bypass tray 237 is opened, a recording form is supplied by manual bypass, and a recording form is conveyed by the feeding roller 236 to the resist roller 238. The resist

roller 238 doubles the supply timings of a recording form so that the tip of the toner image formed in the photoconductive drum 240 may be transferred by the nearly tip of a recording form.

[0025]With the transfer electrification machine 239, the toner image on the photoconductive drum 240 is transferred by the recording form. The recording form with which the toner image was transferred is separated from the photoconductive drum 240. Under the present circumstances, although separation of the recording form from the photoconductive drum 240 with large curvature is comparatively easy, in order that it may dissociate easily further, it applies voltage to the discharging needle 244, and weakens the electrostatic adsorption power between the photoconductive drum 240 and a recording form. Then, the toner in which the photoconductive drum 240 remained with the cleaner 227 is removed.

[0026]The separated recording form is sent to a fixing assembly with the transportation belt 241, and it is fixed to the transferred toner image. A fixing assembly comprises the ceramic heater 211, the film 212, and the two rollers 213 and 214. The heat generated by the ceramic heater 211 is efficiently transmitted to a recording form and a toner image via the thin film 212. It is for the cooling roller 214 radiating heat in the fixing roller 213.

[0027]The feeding roller 215 comprises one major roller and two small rollers, and it amends what is called a core set attached to the recording form while it conveys the recording form which passed the fixing assembly. The flapper 222 is for changing the transportation direction of a recording form according to operational mode. In what is called one side formation mode that forms the one side HE picture of a recording form, the course which goes to an outlet from the feeding roller 215 is formed. By the discharge roller pair 216, the recording form which image formation ended is discharged to the paper output tray 242.

[0028]In what is called double-sided recording mode, while carrying out counterrotation of the discharge roller pair 216 during discharge by the discharge roller pair 216, the recording form with which the picture was formed in the surface, Change the flapper 222, the course from the discharge roller pair 216 to the middle tray 243 is made to form, and a recording form is sent to the feeding roller 217. The feeding roller 217 has the same composition as the feeding roller 215, amends what is called a core set of a recording form, and sends recording form paper to the middle tray 243. A recording form is conveyed from the middle tray 243 in order of the feeding roller pairs 218, 219, 221, and 235, and a toner image is transferred by the procedure mentioned above to the rear face of a recording form.

[0029]In what is called multiplex recording mode, the recording form which passed the feeding roller 215 is led to the flapper 222, and is sent to the feeding roller 217. The feeding roller 217 sends a recording form to the middle tray 243. A recording form is conveyed from the middle tray 243 in order of the feeding roller pairs 218, 219, 221, and 235, and a toner image is transferred in piles by the procedure mentioned above to the surface of a recording form.

[0030]In double-sided recording or multiplex recording mode, when [ which forms a picture in two or more sheets of recording forms ] carrying out, the first recording form is loaded into the middle tray 243, where the stopped feeding roller pair 218 is fixed. If a handsome recording form reaches the middle tray 243, the feeding roller pair 218 will start rotation and will sandwich two sheets of recording forms between rollers. Two

sheets of recording forms are loaded into the middle tray 243 where the stopped feeding roller pair 218 is fixed. The recording form after an actor playing a comic role is similarly loaded into the middle tray 243.

[0031]At this time, the tip of the later piled-up recording form is piled up in the state where it shifted back to the feeding direction. If specification number of sheets laps with the middle tray 243, the feeding operation from the middle tray 243 will be started. While sending a recording form to the feeding roller pair 221 by the feeding roller pairs 218 and 219, the separation lever 220 descends between the tip of the first recording form, and the tip of a handsome recording form, the first recording form is separated, and it is sent to the feeding roller pair 221. The first recording form is conveyed by the feeding roller pair 235, and a toner image is transferred by the procedure mentioned above. After the first recording form is separated and conveyed, the feeding roller pairs 218 and 219 rotate reversely the recording form after handsome [ who ran aground to the separation lever 220 ], and it is returned to the middle tray 243. Then, the above-mentioned operation is repeated and all the recording forms loaded into the middle tray 243 are conveyed.

[0032]Two or more paper detecting sensors are arranged at the carrying path of a recording form, and it is used in order to double the operation timing of error detection, such as a paper jam, and each part. The first sensor 250 this side of the feeding roller pair 235, and the second sensor 251 this side of the resist roller 238, The third sensor 252 is arranged before the feeding roller 215, and, as for the fifth sensor 254, the sixth sensor 255 is arranged for the fourth sensor 253 before the separation lever 220 immediately after the feeding roller 217 between the discharge roller 216 and an outlet.

[0033][System configuration] Drawing 3 is a block diagram showing the system configuration example at the time of using a compound digital process copying machine as a printer. The host computer 501 and the compound digital process copying machine 200 are connected via LAN500. The compound digital process copying machine 200 is connected with LAN500 by the interface of the PDL section 108. The hard disk 502 for accumulating data and a picture is connected to the host computer 501. When printing the picture accumulated in the hard disk 502 with the compound digital process copying machine 200, the host computer 501 reads image data from the hard disk 502, and sends image data to the compound digital process copying machine 200 by LAN500 course.

[0034][Image server] Drawing 4 is a block diagram showing the detailed example of composition of the image server 110.

[0035]The image memories 300 and 301 have only a storage capacity into which the picture of A4 size goes, respectively, and are connected in the selector (CORE IP) 112 by the video bus 302 which outputs and inputs a picture. On the other hand, the image memories 300 and 301 are connected also with the hard disk 306 with the video bus. The picture stored in the image memories 300 and 301 is accumulated and saved eventually at the hard disk 306.

[0036]While writing the picture stored in one image memory in the hard disk 306, it has two image memories because a picture is stored via the selector 112 using the image memory of another side. That is, it is for raising the whole performance by double buffer processing using two image memories. It is also possible to use as a cascade buffer which uses the image memories 301 and 302 succeeding the case where a picture exceeds A4 size.

[0037]The image memories 300 and 301 are controlled by the memory controllers 303

and 304, respectively. The memory controllers 303 and 304 are controlled by CPU111 via the control bus 307.

[0038]Drawing 5 is a figure showing the example of quota of the storage area of the hard disk 306. The hard disk 306 is divided into the temporary field a and the memory box field b as shown in drawing 5. The temporary field a is a field in which the picture is temporarily stored for electronic sorting application etc. The memory box field b is a field for registering the picture. The slash part of the memory box field b shown in drawing 5 is a portion into which the picture is registered. A user can change arbitrarily each storage capacity of the temporary field a and the memory box field b. For example, the user frequently using the memory box field a assigns many storage capacities to this field, and the user who mainly uses the hard disk 306 as a temporary memory assigns many storage capacities to the temporary field a.

[0039]A memory box divides two or more (this example 100 pieces) specific storage areas of the image server 110, and saves a picture at them. A memory box is explained in detail using 6C from drawing 6 A.

[0040]Drawing 6 A is a mimetic diagram showing the memory box 401 of the image server 110. The user of each memory box is registered beforehand. In drawing 6 A, the user A registered arbitrary names and passwords into the third memory box, and has set up the royalty. The user B has set the royalty as the memory box of eyes most in a similar manner. thereby -- these two memory boxes -- the users A and B -- it is alike, respectively and becomes a receiving storage area for exclusive use. The above operation is performed by the final controlling element of the compound digital process copying machine 200.

[0041]Drawing 6 B is a figure showing signs that a picture is registered from the host computer 501 in a memory box. Most, the picture Y is registered into the memory box of eyes, and the picture X is registered into the third memory box. Not only a picture but various information required for printing added to it is stored in a memory box. The above operation is performed from the host computer 501.

[0042]Drawing 6 C is a figure showing the case where the picture stored in the memory box is printed. A user specifies the file name of a box number, a password, and a picture from the final controlling element of the compound digital process copying machine 200. The picture specified by this operation is printed.

[0043]The picture by which the merit using a memory box was developed from PDL data is that the picture is printed, when it is once stored in an image server and the user operates the final controlling element of a compound digital process copying machine. For example, it can prevent mixing the printout of the picture with other printouts, and the privacy of the printout can be protected. There is also a merit that a series of processes which transmit the PDL data of the picture printed frequently from the host computer 501 to the compound digital process copying machine 200, and are naturally developed by storing the picture developed from PDL data in a memory box can be omitted and printed.

[0044][Procedure] Drawing 7 A and 7B are flow charts which show an example of a sequence which inputs a picture into a memory box. These processings are performed when CPUs 102, 104, 109, and 111 collaborate. It is an input control routine of the memory box for storing in the memory box of the image server 110 the picture generated by developing PDL data which is shown in drawing 7 A, and the demand from the

outside starts.

[0045]The information which shows a file name required for the input control to a memory box, image size, the stage of a sheet paper cassette, page number, etc. at Step S1 is received from the host computer 501. The parameter for storing in a memory box the picture developed from PDL data based on these information is set (Step S2).

[0046]Then, the picture for 1 page is inputted into the image server 110 at Step S3. The input process which the PDL data received by the PDL section 108 from the host computer 501 are specifically developed, and the developed picture is inputted into the image server 110 via the selector 112, and is stored in the appointed memory box is performed. And S5 is repeated from Step S3 until processing progresses to Step S5, it is judged whether the input of the picture of all the pages finished and the input of the picture of all the pages finishes, after it is judged whether storing of the picture for 1 page finished it as step S4 and the input of the picture for 1 page finishes. And if the input of the picture of all the pages finishes, an input control routine will be ended.

[0047]Next, the processing at the time of being judged with storing of the picture for 1 page not being completed by step S4 is explained. In this case, processing progresses to Step S6 and the opening of the memory box field b assigned to the hard disk 306 of the image server 110 is investigated. When an opening is in the memory box field b, it is only regarded as what the above-mentioned input process has not ended, processing returns to step S4, and it waits to complete storing of the picture for 1 page.

[0048]On the other hand, when judged with there being no opening in the memory box field b by the judgment of Step S6, it progresses to Step S7, and the image transfer task shown in drawing 7 B is started. An image transfer task is processing which builds the opening for evacuating the old picture stored in the memory box to the host computer 501, and storing a new picture, when an opening is lost to the memory box field b.

[0049]It is judged whether the picture which the picture corresponding to the oldest job referred to Step S8, and was searched with step S9 is protected. Protection here is the attribute set as the picture, and the protected picture is not shunted or eliminated even if an opening is lost to the memory box field b. When the searched picture is protected, processing progresses to Step S10 and it is judged whether search was completed about all the pictures stored in the memory box.

[0050]In Step S8, the processing which searches the picture of a older job is repeated until search is completed about all the pictures which the picture which is not protected was found by step S9 and the judgment of S10, or were stored in the memory box.

[0051]When judged with search having been completed about all the pictures stored in the memory box in Step S10 (i.e., when the picture which can be shunted or eliminated does not exist in a memory box), it is Step S11, While the LCD display of a final controlling element, etc. display the "memory full" which shows that there is no opening to a memory box, since there is no opening in a memory box, it notifies the host computer 501 that a job is stopped, and processing is stopped.

[0052]On the other hand, when the picture which is not protected is searched, it progresses to Step S12, and transmission of the picture stored in the memory box is required from the host computer 501. . On the other hand, it is difficult to store the picture transmitted also to the hard disk 502 of the host computer 501. Or when the transfer request of a picture is not accepted for all the Reason with the busy host computer 501, processing which processing followed to Step S11 by the judgment of

Step S13, and was mentioned above is performed.

[0053]Host computer 501 HE transmission is carried out from a memory box, and the picture which is Step S14 when the transfer request of a picture is accepted, and was chosen is stored in the hard disk 502 by the host computer 501. The information for making it return to a memory box easily if needed is added to the evacuated picture.

[0054]An end of transmission of a picture will eliminate the picture transmitted at Step S15 from a memory box. And it is expressed as Step S16 to a final controlling element that the picture in a memory box shunted. And processing returns to the routine of drawing 7 A, and after recovery processing for re-storing a picture in a memory box at Step S17 is performed, it returns to Step S3.

[0055][Operating procedure] Next, the operating procedure related to this invention and the display of a final controlling element are explained using 8F from drawing 8 A. In this embodiment, the final controlling element provided with the liquid crystal touch panel is assumed.

[0056]Drawing 8 A shows Screen 600 of the memory box information displayed on a final controlling element. The list 601 shows the file in a memory box in order of registration. Although two or more boxes can be registered separately and a picture is registered into the box, the picture registered into all the boxes is displayed on the list 601 by the memory box. Drawing 6 A shows the example in which six pictures of the data 1-6 are registered into the memory box.

[0057]The information displayed on the list 601 is status which shows the file name of the time and the picture into which the picture was registered, and the state of a picture. The status "finishing [ a print ]" shows that it was printed once [ at least ], after the picture is registered. Although the "*" mark is added to "the data 1" in drawing 6 A, this shows that this picture is protected. Although detailed explanation is omitted, the input of a password is required of operation to the picture protected.

[0058]By the information on the picture currently displayed with the italic character, and that of drawing 6 A, "the data 6" shows now the picture chosen on the final controlling element. Since Screen 600 is a touch panel, it can make the picture a selective state by touching the file name etc. of the picture for which it asks. The information number of the picture which can be displayed in a list has restriction from restriction of the size of Screen 600. Therefore, the scroll keys 604 and 605 for scrolling the list 601 are formed. In order to display the erase key 603 for carrying out manual elimination of the selected picture, and the detailed information on a picture, there are the detailed information key 602 and the key 606 for closing Screen 600.

[0059]Drawing 8 B is a figure showing the state where the picture of "the data 7" was newly registered into the memory box. In registering the picture of "the data 7", the case where memory full occurs in the memory box field b is assumed. In this case, registration is older and the picture of the "data 2" which is not protected becomes a candidate for evacuation. After the picture of "the data 2" shunts, the picture of "the data 7" is registered. The status of the picture of "the data 2" is "evacuated" and the status of the picture of "the data 7" becomes the "print O.K." in which it is shown that it can print.

[0060]If the "data 2" in which "shunting" is shown in status is chosen and detailed information is searched for, it will indicate that "the data 2" shunted to the host computer as the message 611 to which Screen 610 shown in drawing 8 C is displayed, and expresses the detailed information on the selected file. In addition. It can return to

original Screen 600 by pressing the key 612.

[0061]On the other hand, drawing 8 D is an example of Screen 600 displayed when the host computer 501 refuses the transfer request of a picture for a certain Reason and a picture is not able to shunt. In this case, since the picture of "the data 7" is not registered into a memory box, that status is set to "memory full NG." As shown in drawing 8 E, also when all the pictures already stored in the memory box are protected, the status of the picture of "the data 7" is set to "memory full NG."

[0062]When the data volume of the picture of "the data 7" is large, as shown in drawing 8 F, by two or more files and drawing 8 F, the "data 2" and the "data 3" can shunt.

[0063]In the compound digital process copying machine which is provided with the memory box for storing a picture according to this embodiment as explained above, When the opening of a memory box field is lost, the picture chosen in a predetermined procedure can be transmitted to a host computer etc., and a new picture can be stored in a memory box by making a picture shunt to the storage medium of a host computer.

[0064]

[Modification(s)]In the embodiment mentioned above, although the example which connects the host computer 501 and the compound digital process copying machine 200 by LAN, such as Ethernet and TokenRing, was shown, the transfer line of the graphics file to which it is made to evacuate is not limited to LAN. For example, via serial buses, such as a SCSI interface, an IEEE 1284 interface (what is called by Centronics), and IEEE1394, Universal Serial Bus (USB), A graphics file can also be evacuated to the host computer 501. Since the compound digital process copying machine 200 is provided with the facsimile function, it is also possible to transmit a graphics file using a telephone line.

[0065]The storage medium of the shunting place of a memory box or a graphics file may not be limited to a hard disk, and a magneto-optical disc and magnetic tape media, such as Digital Audio Tape (DAT), may be sufficient as it, for example.

[0066]In the embodiment mentioned above, although the example which is stored in a memory box, depends and makes an old picture applicable to shunting was explained, this invention is not limited to this. For example, a priority is attached to each memory box and shunting the picture of a low-priority memory box is also considered.

[0067]In drawing 3, although the compound digital process copying machine and the host computer showed one set each of an example, this invention is not limited to this. that is, it is shown in drawing 9 or drawing 10 -- as -- the combination of two or more sets of one set of a compound digital process copying machine, and host computers -- the combination of two or more sets of two or more sets of compound digital process copying machines and host computers is still more possible. Since a possibility that image transfer will be refused by the host computer can be made very low if it carries out like drawing 9 or drawing 10, it becomes possible to ensure evacuation of a picture.

[0068]

[Other embodiments] Even if it applies this invention to the system which comprises two or more apparatus (for example, a host computer, an interface device, a reader, a printer, etc.), it may be applied to the devices (for example, a copying machine, a facsimile machine, etc.) which consist of one apparatus.

[0069]The purpose of this invention the storage which recorded the program code of the software which realizes the function of an embodiment mentioned above, It cannot be overemphasized that it is attained, also when a system or a device is supplied and the

computer (or CPU and MPU) of the system or a device reads and executes the program code stored in the storage. In this case, the function of an embodiment which the program code itself read from the storage mentioned above will be realized, and the storage which memorized that program code will constitute this invention. By executing the program code which the computer read, Based on directions of the program code the function of an embodiment mentioned above is not only realized, but, It cannot be overemphasized that it is contained also when the function of an embodiment which performed a part or all of processing that OS (operating system) etc. which are working on a computer are actual, and was mentioned above by the processing is realized.

[0070]After the program code read from the storage was written in the memory with which the function expansion unit connected to the expansion card inserted in the computer or the computer is equipped, It cannot be overemphasized that it is contained also when the function of an embodiment which performed a part or all of processing that CPU etc. with which the expansion card and function expansion unit are equipped are actual, based on directions of the program code, and was mentioned above by the processing is realized.

[0071]

[Effect of the Invention]As explained above, according to this invention, an image processing device in consideration of the case where the accumulation means which stores the image data for printing will be in a memory full state, and a method for controlling the same can be provided.

[Translation done.]